



# AMD - Competition is Good

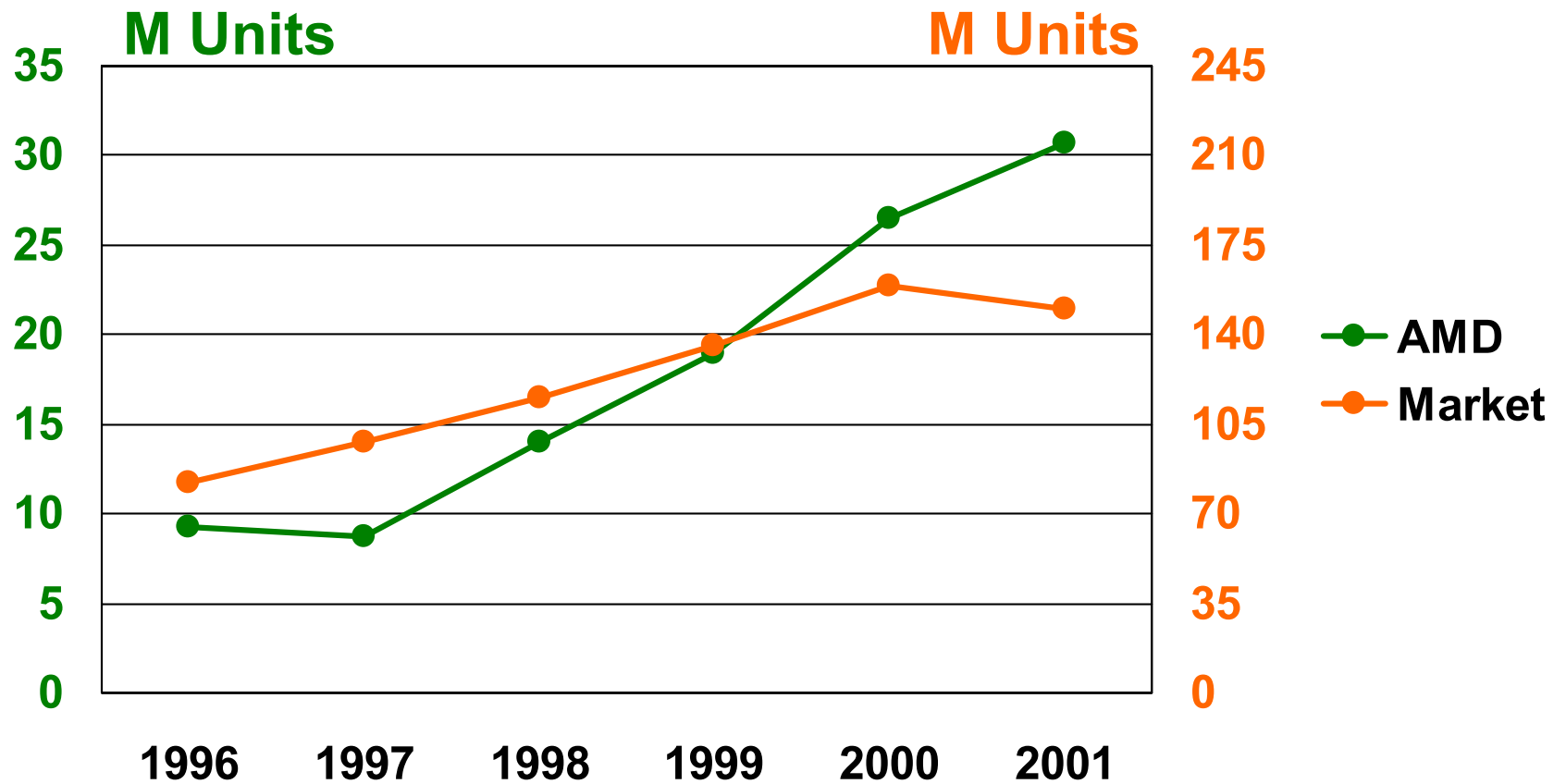
March 13, 2002

# The AMD Athlon™ Processor

## A Turning Point for AMD



The AMD Athlon™, introduced in 1999, led AMD to significantly outperform the PC processor market.



Source: Mercury Research & AMD

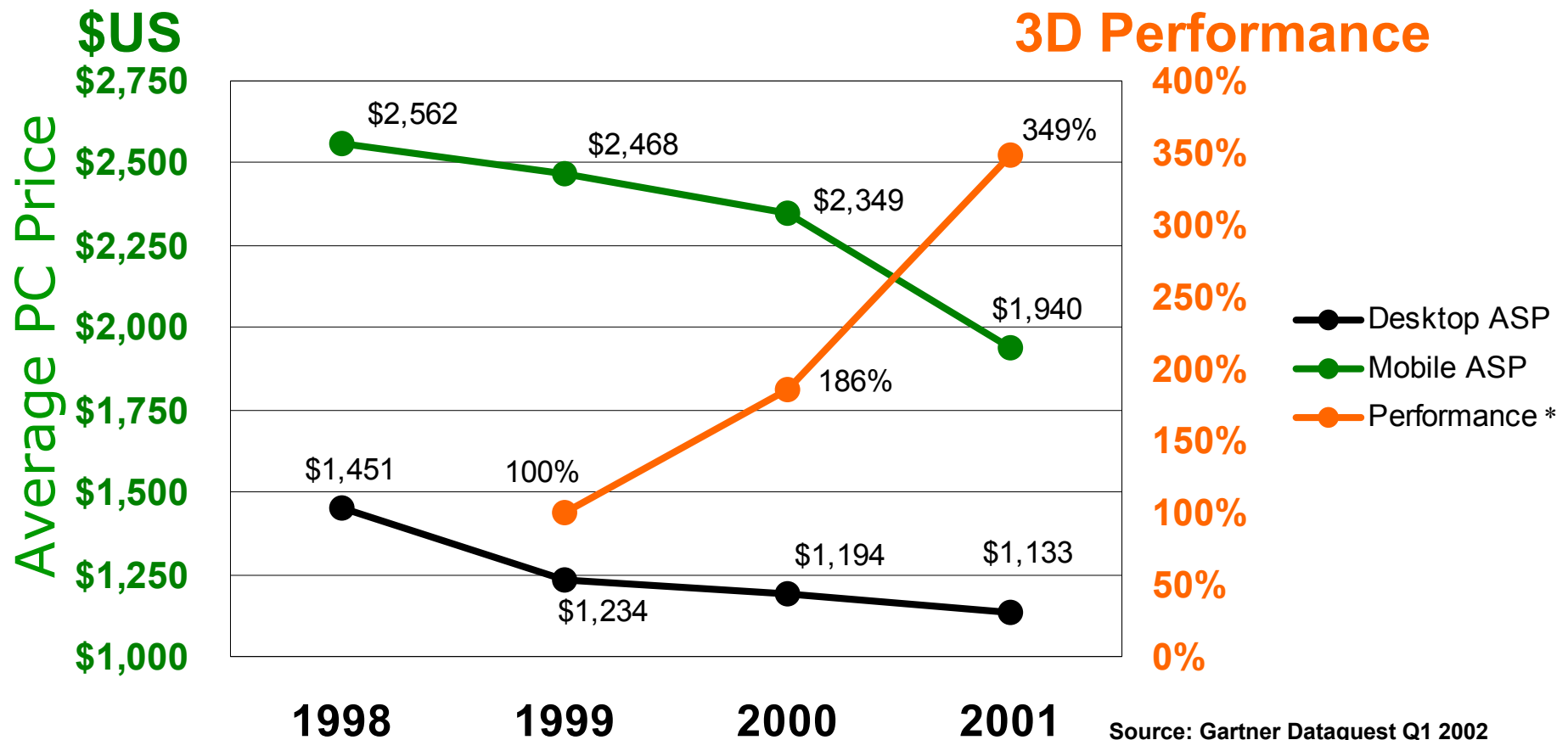
# The AMD Athlon™ Processor

## A Turning Point for the PC Industry



**"Competition drives innovation. Competition reduces cost.  
Competition increases variety. Competition is good."**

-Jerry Sanders

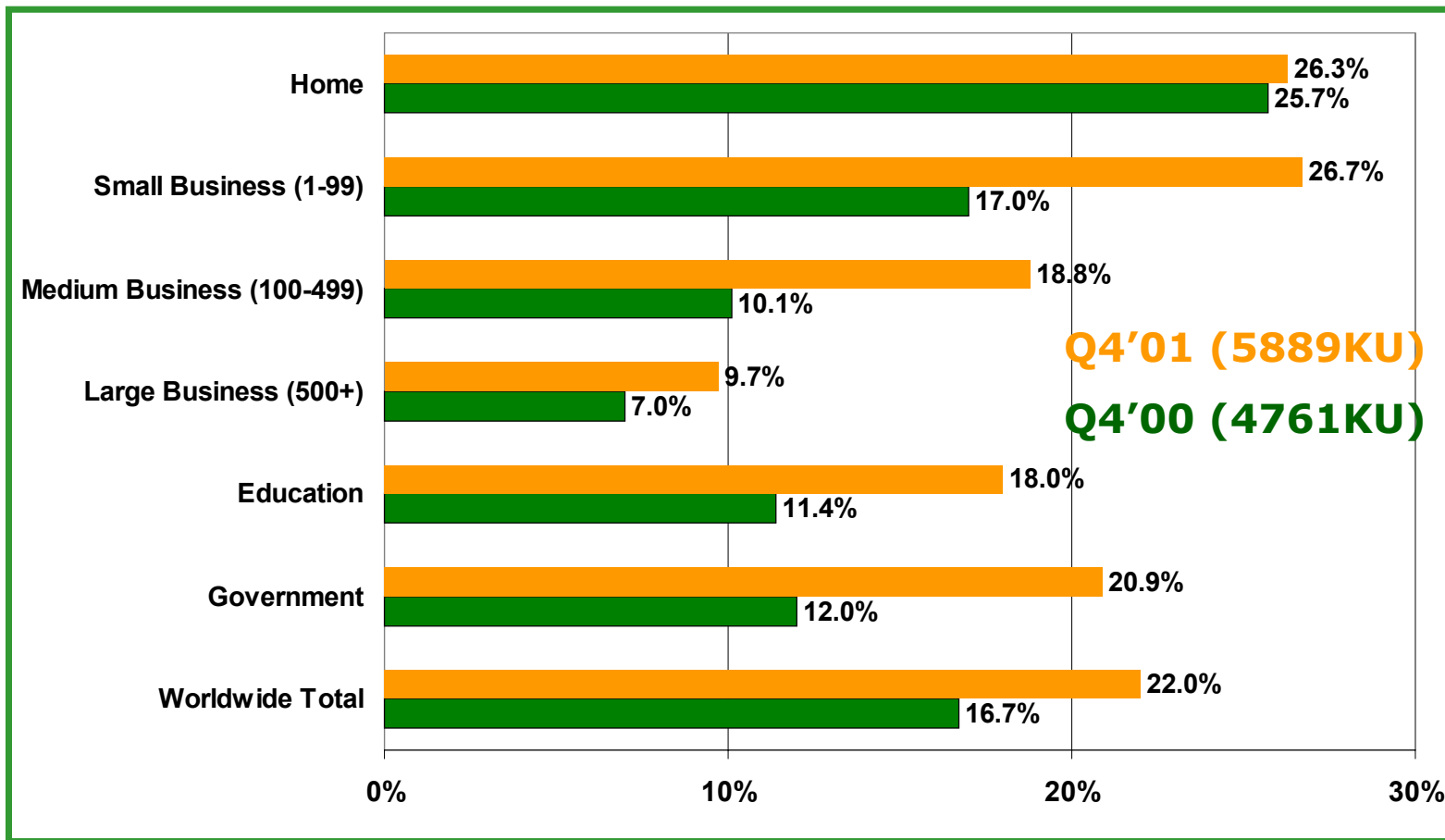


*\*Relative Performance of AMD Athlon™ 550MHz, AMD Athlon 1.0GHz and AMD Athlon XP 2000+ on Half-Life Smokin' Benchmark*

# AMD – Gaining Market Share



## ***Desktop PC Systems with AMD processors Worldwide Shipments – Year to Year***



Source: Dataquest Quarterly Statistics, 4Q Edition, February 2002  
Data is based upon shipments of Windows-based PC Systems

# AMD –Technology Solutions to Real World Problems



- Today marks a first for AMD launching new levels of reliability, performance and power savings with three new processor, for three markets, all on one day.
- AMD has always focused on customer needs, and we design solutions based upon customer input.

<b>Customer Need</b>	<b>AMD Solution</b>
Better reliability and scalable performance in servers & workstations	<b>AMD Athlon™ MP processor with AMD Smart MP technology</b>
Higher performance across a wide variety of computer applications	<b>AMD Athlon XP processor with QuantiSpeed™ architecture</b>
Extended battery life without compromising performance	<b>Mobile AMD Athlon 4 processor with AMD PowerNow!™ technology</b>

## AMD Athlon™ MP Processor 2000+ with Smart MP technology



- AMD Athlon MP processors will continue to deliver outstanding performance in the single and multiprocessing server and workstation markets.
- Offering the reliability and scalability our customers demand with AMD Smart MP technology.
- Enables lower total cost of ownership through stable Socket A infrastructure.
- Worldwide system availability is expected from Racksaver, Boxx Technologies, Angstrom and Appro among others.

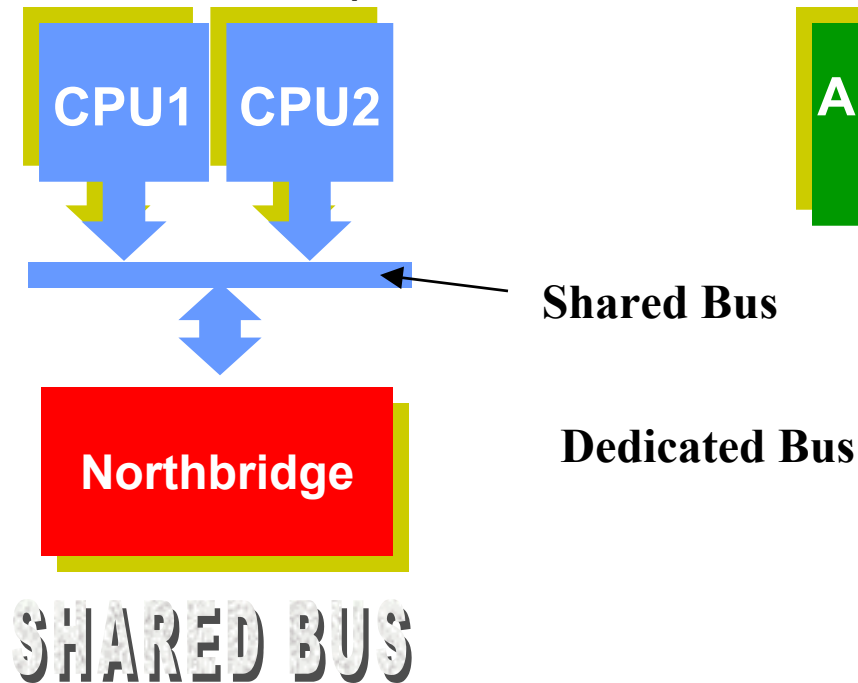


# AMD Smart MP Technology

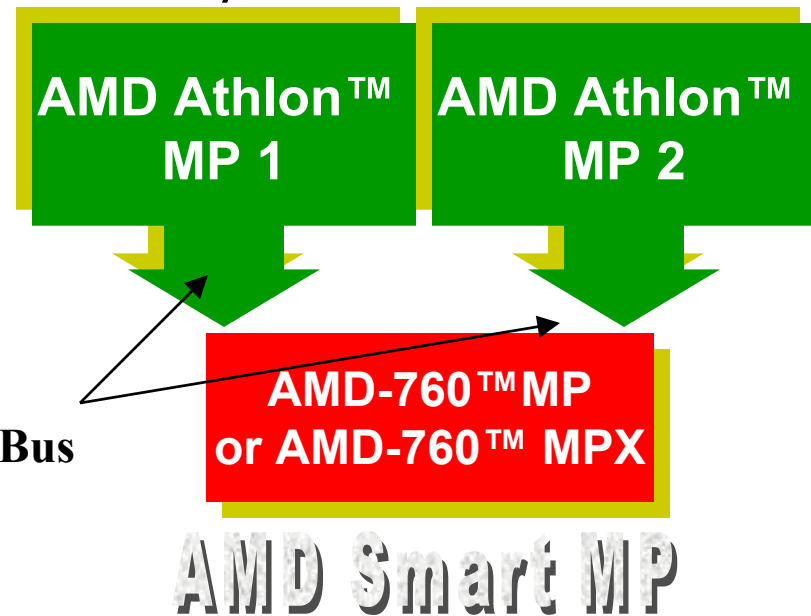
## Smarter Multiprocessing



Competitive shared bus  
architectures limits  
bandwidth and performance  
scalability



AMD Smart MP means  
better scalability and  
improved throughput for  
your network

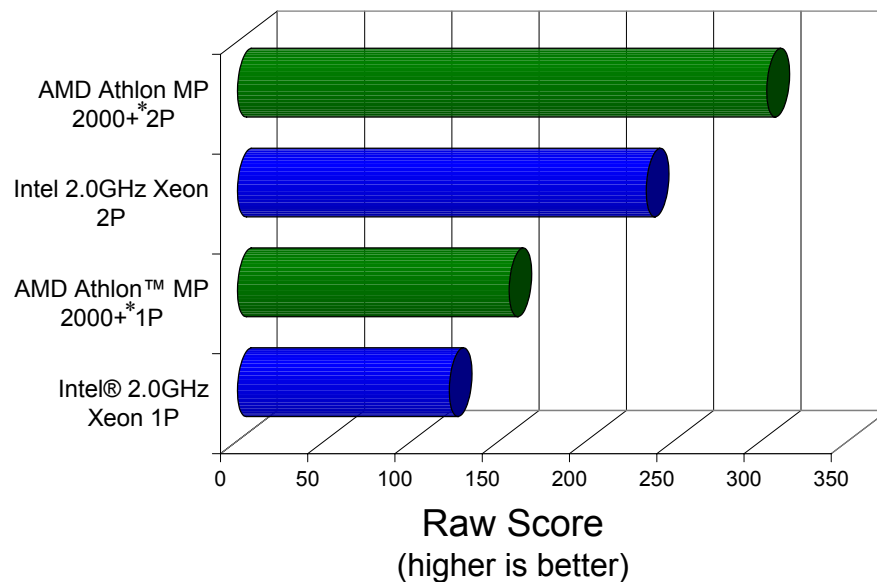


# Performance and Scalability with AMD Smart MP Technology

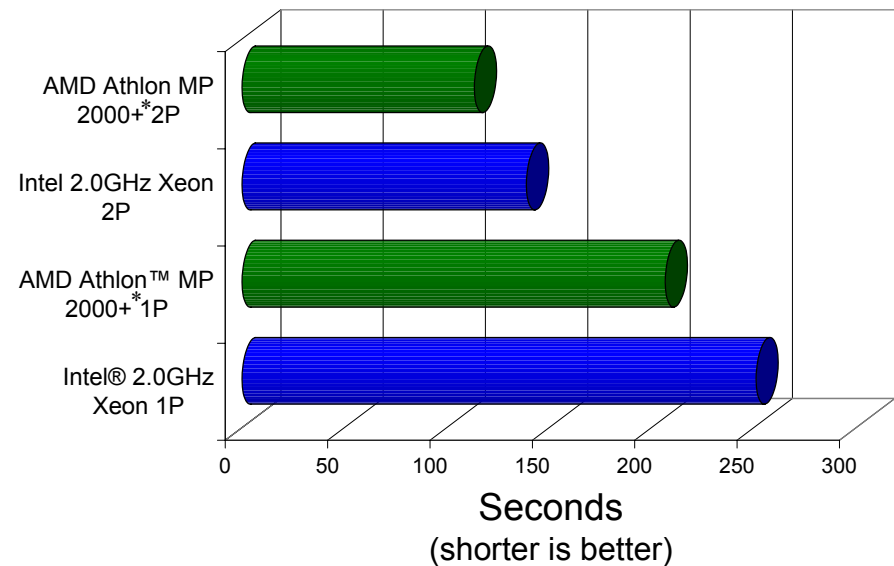


**AMD offers better performance and better scalability  
through AMD Smart MP Technology**

ScienceMark



Linux Kernel Compile



(See backup for configuration details.)

QuantISpeed™ architecture outperforms competitive 2.0GHz PC processors. QuantISpeed architecture operates at 1.67GHz



## AMD Athlon™ XP Processor 2100+ with QuantiSpeed™ architecture



- Once again AMD asserts its leadership in the desktop processor market with the introduction of the world's highest performing PC processor, the AMD Athlon™ XP processor 2100+.
- AMD Athlon XP processor 2100+ features QuantiSpeed™ architecture which speeds up applications and delivers extreme performance for Windows® XP.
- Systems available immediately in the US from Compaq, and in Europe from NEC-CI and Fujitsu Siemens.



**EXTREME  
PERFORMANCE**  
for Windows® XP



# QuantiSpeed™ Architecture

## Speeding Up Application Performance



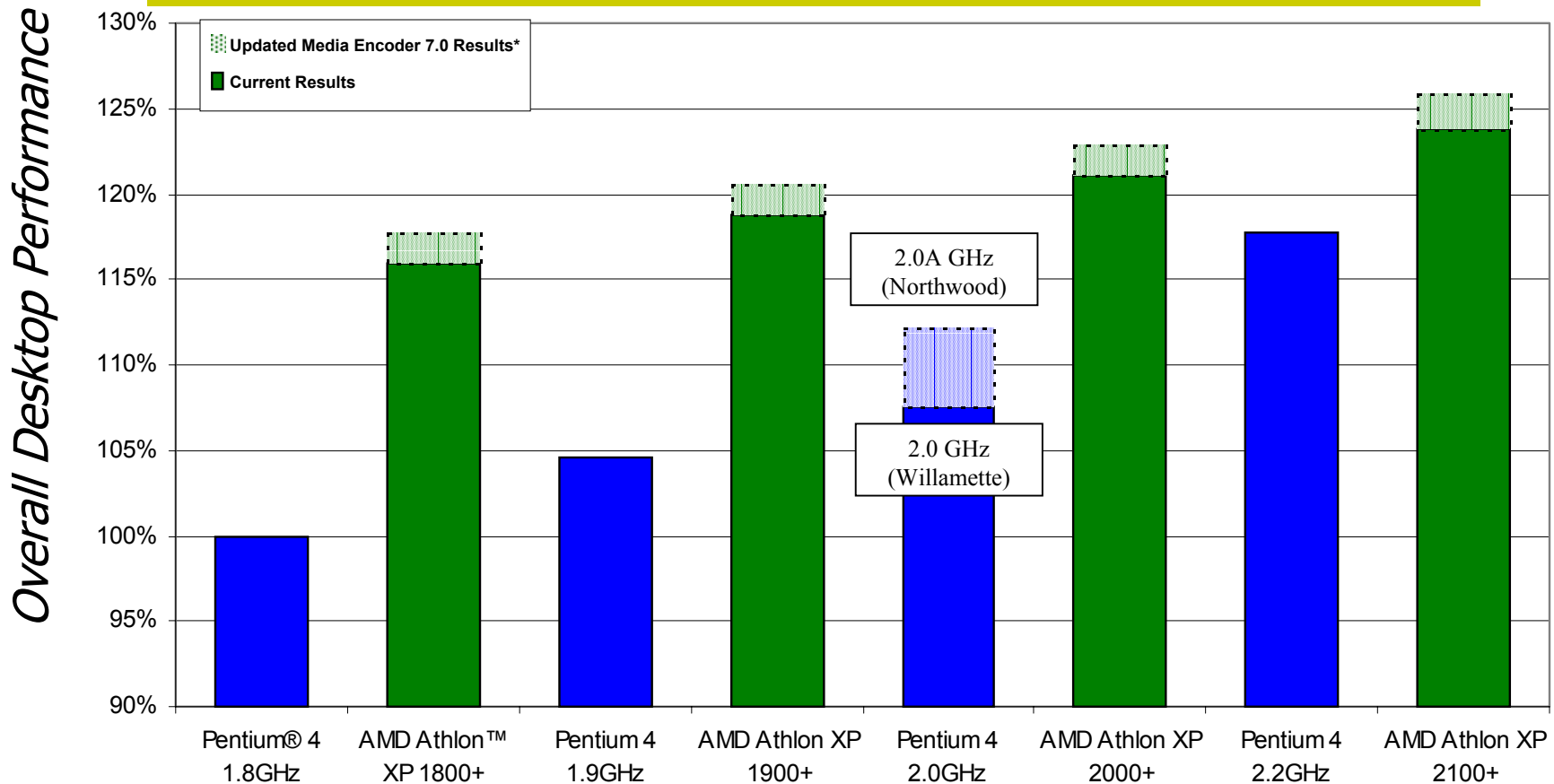
- An easy-to-understand name which describes the AMD Athlon™ XP processor's core architectural features and hence its ability to deliver more work for every clock cycle.
- Delivers a significant increase in application performance versus competitive, similarly configured platforms.
- QuantiSpeed architecture incorporates:
  - Nine-issue, fully pipelined, superscalar micro-architecture
  - Superscalar, fully pipelined floating point unit (FPU)
  - Hardware data pre-fetch
  - Exclusive & speculative Translation Look-aside Buffers (TLBs)
- Analogy: You and a friend are bailing water out of a boat. Your friend uses a cup while you use a bucket. Even though your friend bails faster than you, you end up bailing more water in the same amount of time because your container is larger.

# AMD Athlon™ XP Processor

## Continuing Performance Leadership



### Windows® XP Benchmark Suite - DDR vs. DDR



*\*Updated Windows® Media Encoder Results contain a software update which enables 3DNow!™ Professional technology in version 7.0 of Microsoft Windows® Media Encoder. This software patch is not publicly available; however currently available dynamic link library versions 8.0 for Microsoft Windows Media Encoder enable support for 3DNow! Professional technology.*

(See backup for benchmark and configuration details.)

# AMD Athlon™ XP Processor

## Application Performance



The AMD Athlon™ XP processor 2100+ outperforms the 2.0A GHz and 2.2GHz Pentium® 4 processors with DDR on a broad array of applications on Windows® XP

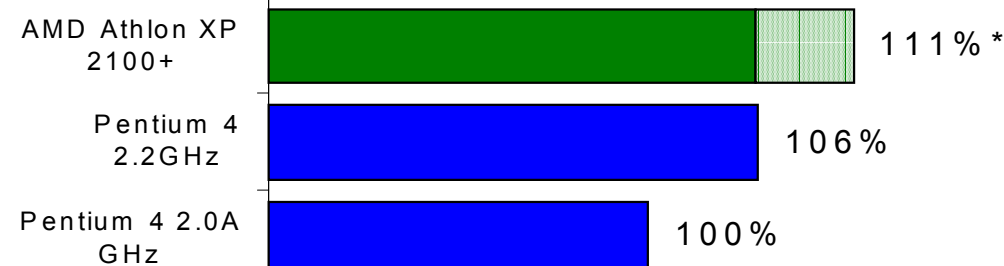
### Office Productivity (Overall)

Includes Microsoft® Office 2000 (Access, Excel, Frontpage, Powerpoint, Word), Microsoft Project 98, Lotus Notes R5, Netscape Communicator, Norton AntiVirus, WinZip 8.0, and McAfee VirusScan 5.13 among others



### Digital Media (Overall)

Includes Adobe Photoshop 5.5, Macromedia Dreamweaver 3.0, Netscape Navigator 4.73, Macromedia Flash 5, and Microsoft Windows® Media Encoder 7 among others



### 3D Gaming (Overall)

Half-life Smokin', Expendable, Quake III, AquaMark, DroneZ Generic, Unreal Tournament, Evolva, MDK2, Serious Sam among others



(See backup for configuration details)

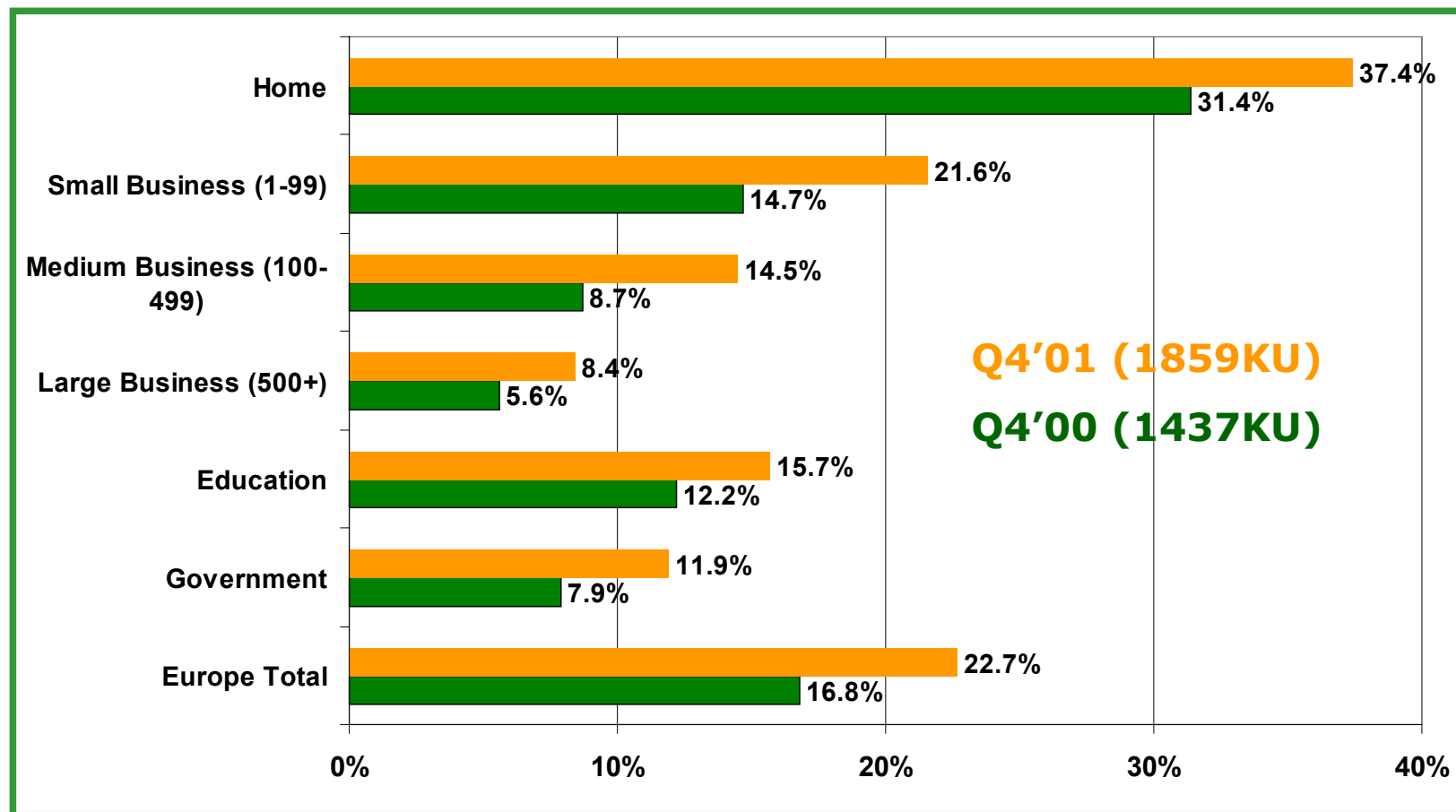
**\*Updated Windows® Media Encoder Results contain a software update which enables 3DNow! Professional technology in version 7.0 of Microsoft Windows® Media Encoder. This software patch is not publicly available; however currently available dynamic link library versions 8.0 for Microsoft Windows Media Encoder enable support for 3DNow! Professional technology.**

(See backup for benchmark and configuration details.)

# European AMD Desktop Market Share



## ***Desktop PC Systems with AMD processors Western European Shipments – Year to Year***



Source: Dataquest Quarterly Statistics, 4Q Edition, February 2002  
Data is based upon shipments of Windows-based PC Systems

# Mobile AMD Athlon™ 4 Processor 1600+

Ultimate Performance for Notebook Computing



- Today AMD announces the mobile AMD Athlon 4 processor 1600+ for high performance notebook computing
- Incorporating AMD PowerNow!™ technology for better overall system battery life with performance on demand.
- Also features QuantiSpeed™ architecture for rapid execution of applications, and 3DNow!™ Professional for better multimedia performance
- Systems planned from Compaq among others.

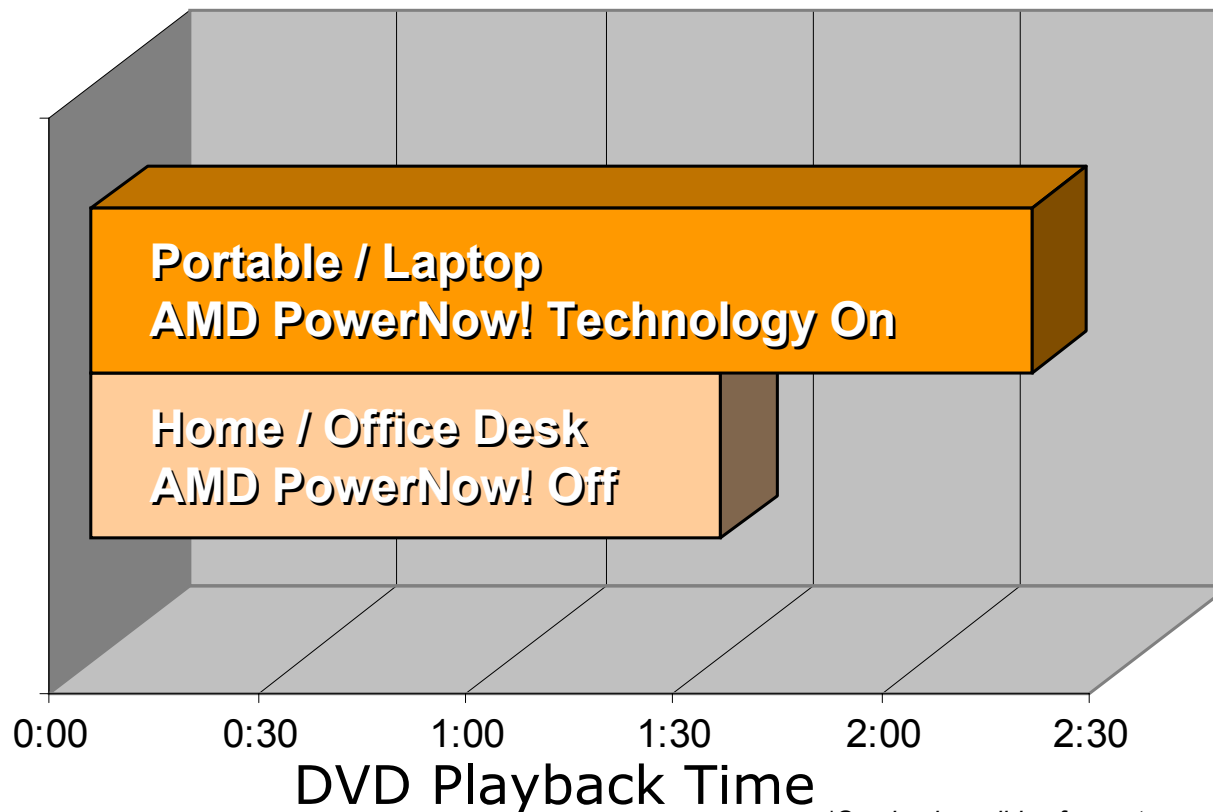


# AMD PowerNow!™ Technology

Better Battery Life, With Performance on Demand



## PowerNow! Battery Savings using different Windows® XP Power Schemes

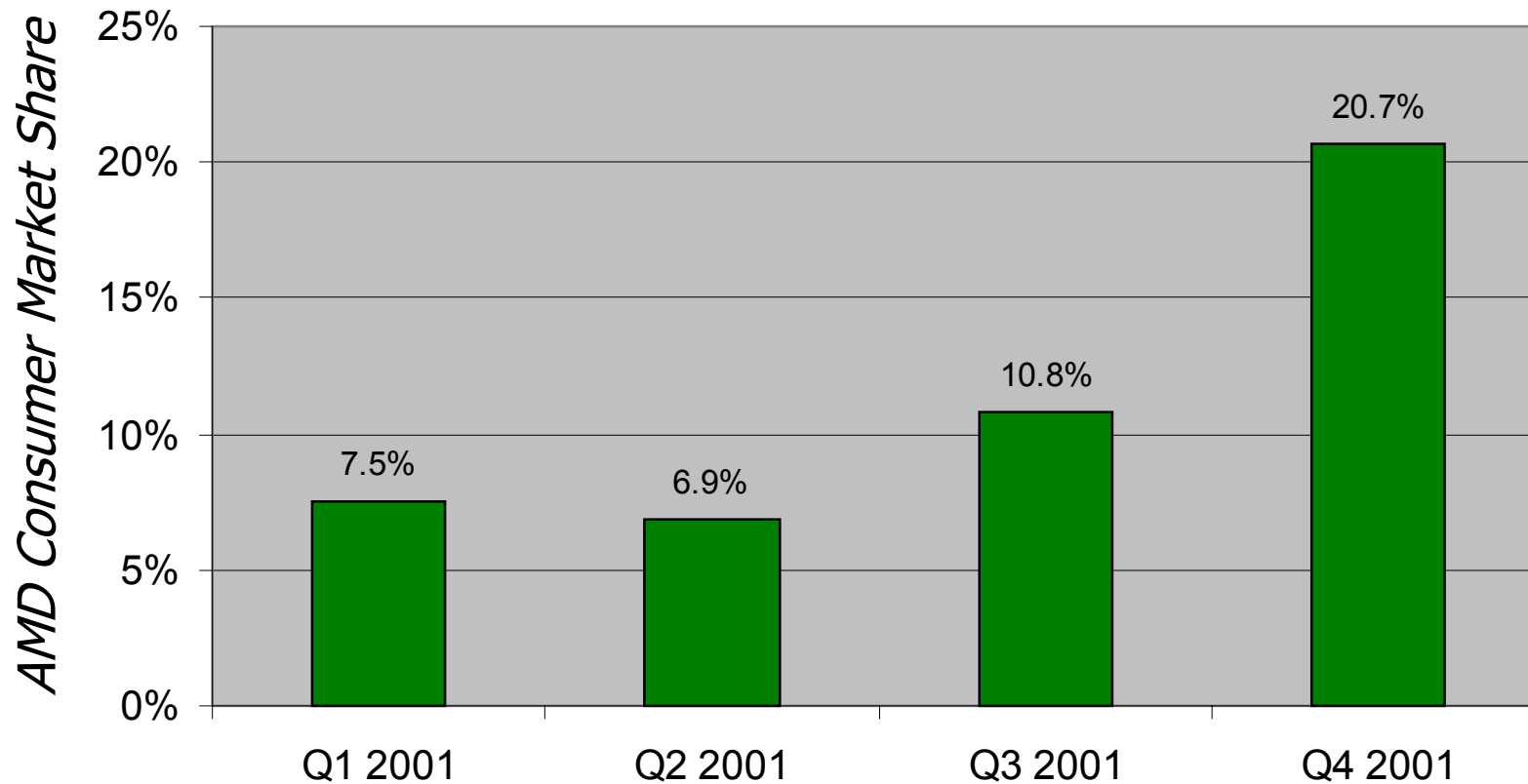


*\*See backup slides for system configuration details*

# Europe AMD Notebook Market Share



## Mobile AMD Athlon™ 4 Processor Gaining Momentum in Europe



Source: Gartner-Dataquest

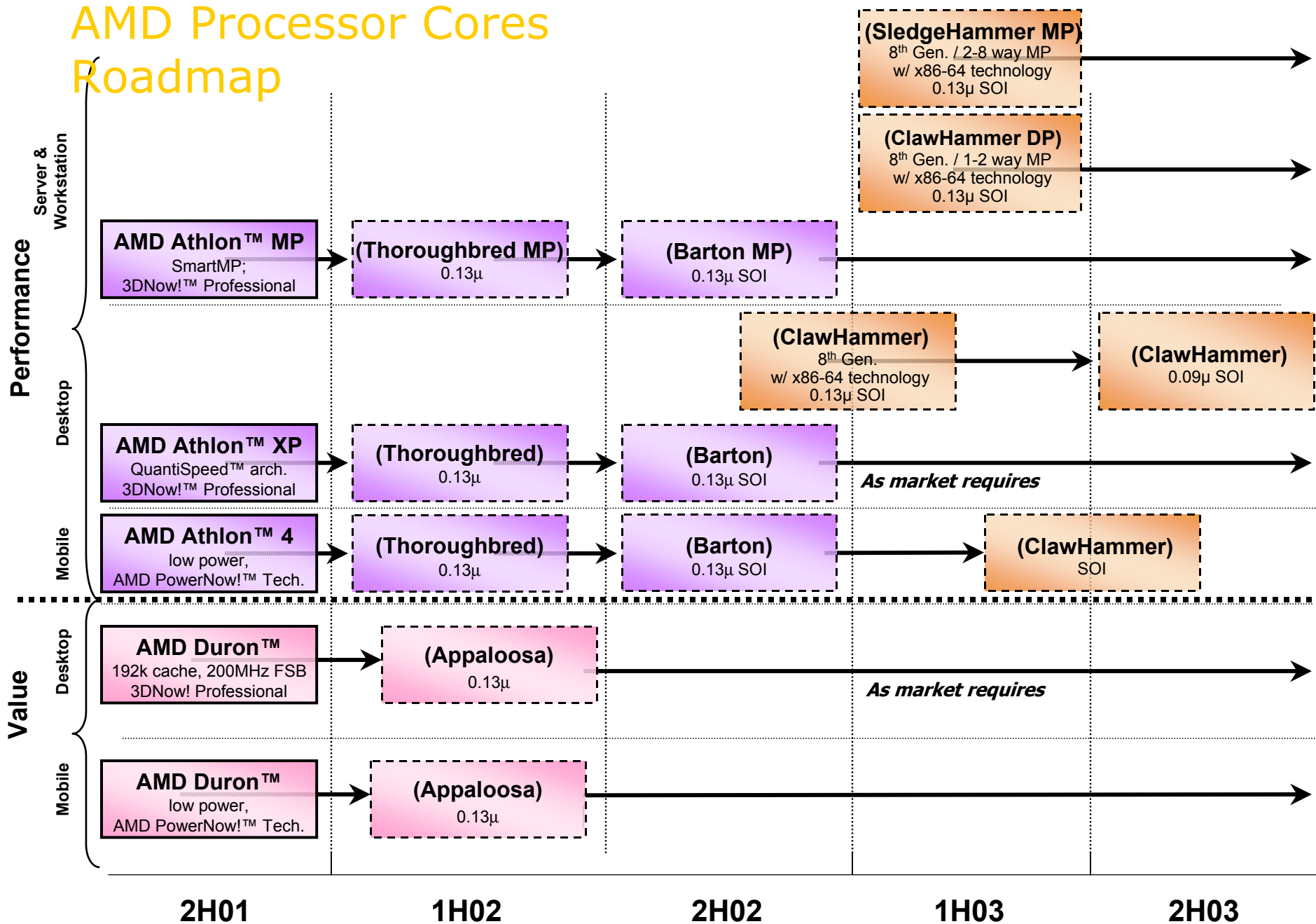


- The launch of the AMD Athlon™ processor was a turning point for the PC industry. With its flagship AMD Athlon processor, AMD has reinforced the benefits of competition to all of the major PC markets by providing innovative technologies designed to meet customers' needs and demands for performance and quality.
- Today, AMD strengthens its award-winning AMD Athlon processor family with the introduction of three new high performance processors designed to address the distinct challenges of the markets we serve:
  - AMD Athlon MP processor 2000+ with Smart MP technology offering a reliable, scalable performance solution for servers and workstations;
  - AMD Athlon™ XP processor 2100+ with QuantiSpeed™ architecture, offering the world's highest application performance for desktop PCs;
  - Mobile AMD Athlon 4 processor 1600+ with AMD PowerNow!™ technology which maximizes system battery life while delivering performance on demand for notebook PCs.



Back-up

# AMD Processor Cores Roadmap



# 1Ku Pricing



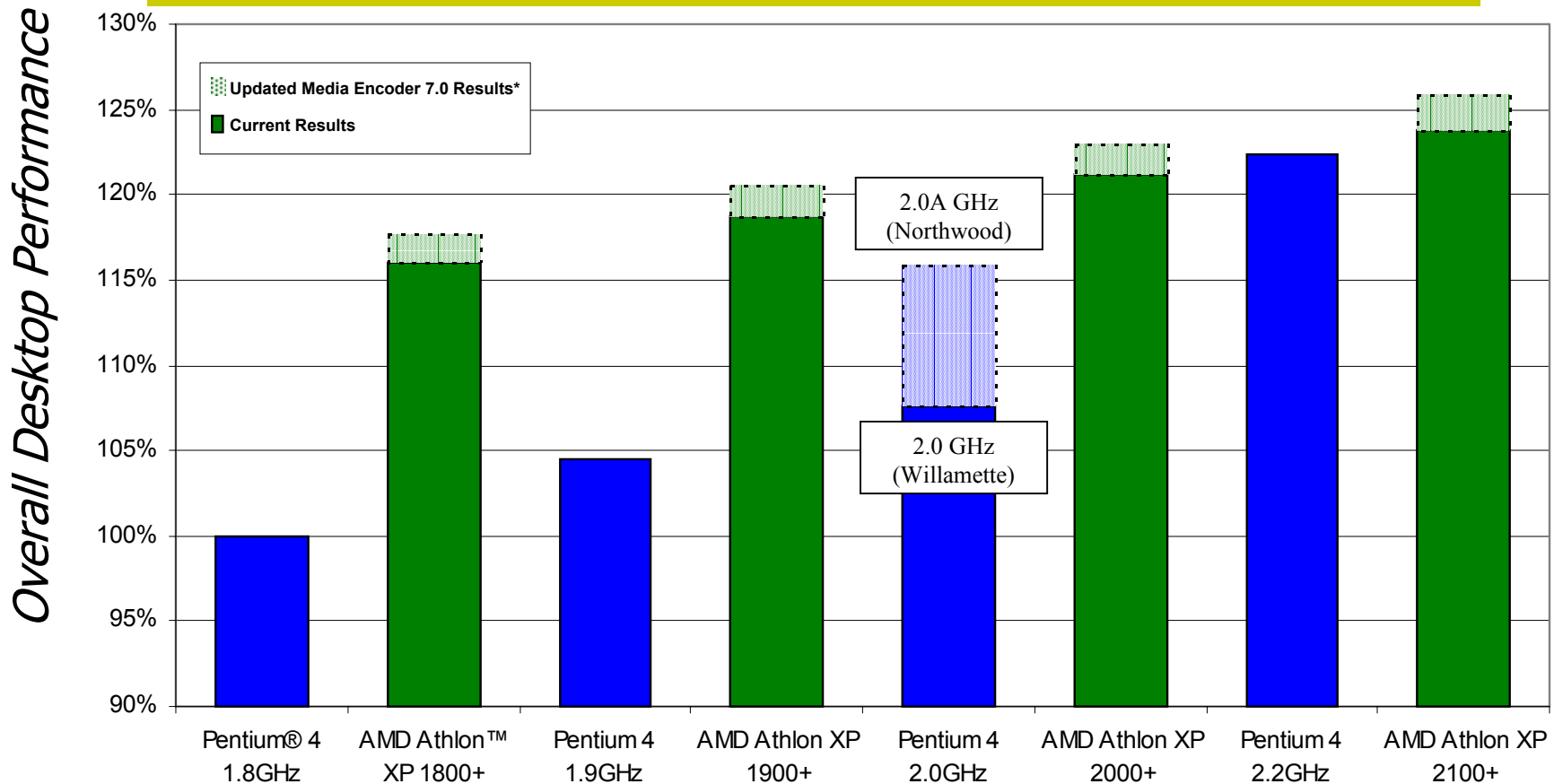
AMD Athlon™ MP Processor		AMD Athlon™ XP Processor		Mobile AMD Athlon™ 4 Processor	
Model Number	Price	Model Number	Price	Model Number	Price
2000+	\$415	2100+	\$420	1600+	\$380
1900+	\$319	2000+	\$339	1500+	\$250
1800+	\$273	1900+	\$231	1.2GHz	\$190
1600+	\$210	1800+	\$188	1.1GHz	\$175
1500+	\$180	1700+	\$157	1.0GHz	\$150
1.2GHz	\$175	1600+	\$130		
1.0GHz	\$165				

# AMD Athlon™ XP Processor

## Continuing Performance Leadership



### Windows® XP Benchmark Suite - DDR vs. RDRAM



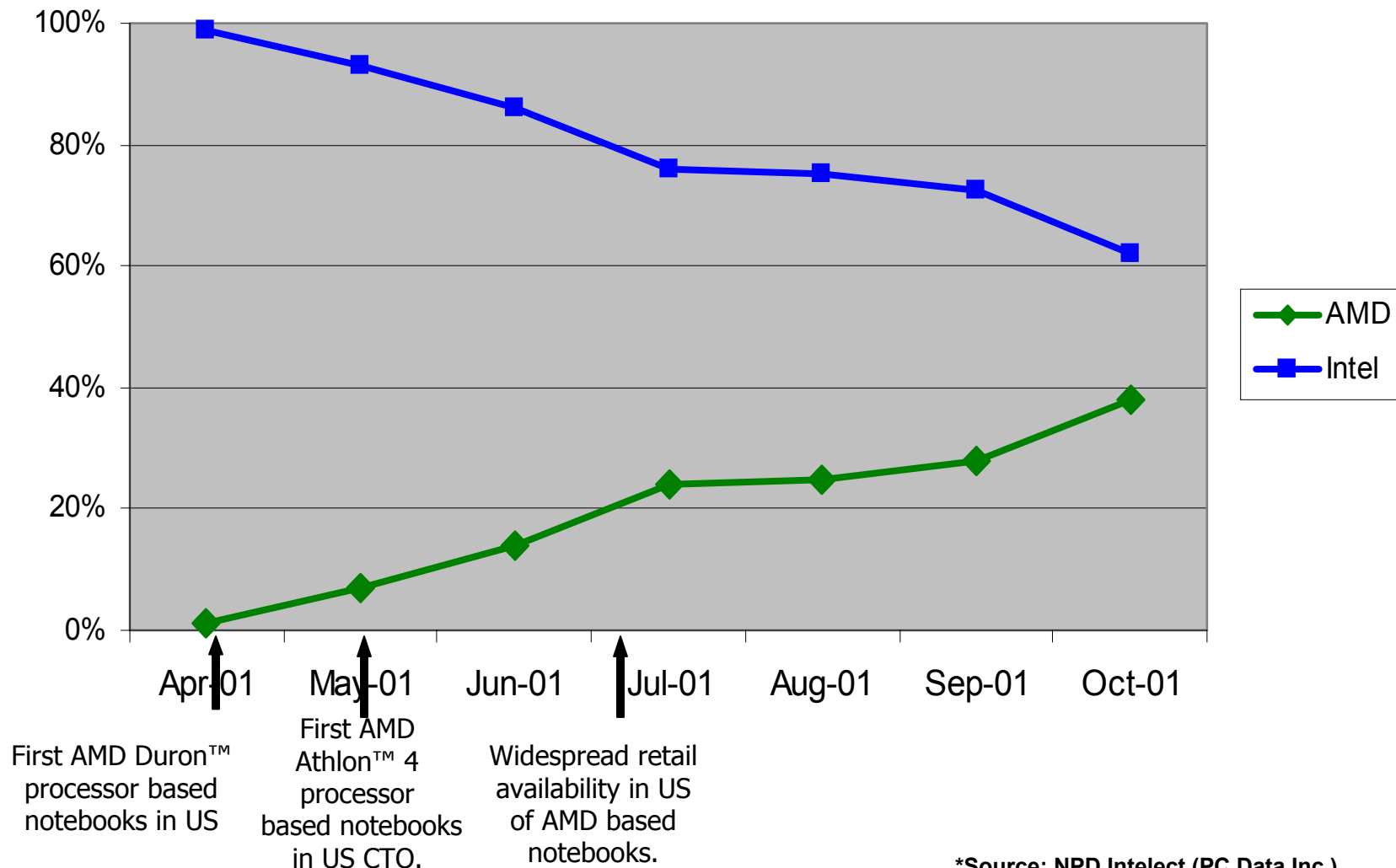
(See backup for benchmark and configuration details.)

*\*Updated Windows® Media Encoder Results contain a software update which enables 3DNow!™ Professional technology in version 7.0 of Microsoft Windows® Media Encoder. This software patch is not publicly available; however currently available dynamic link library versions 8.0 for Microsoft Windows Media Encoder enable support for 3DNow! Professional technology.*

- Continue to deliver leading solutions for both performance and value notebooks
  - Build on mobile AMD Athlon™ and AMD Duron™ processor success in retail markets:
  - Expand into commercial notebook & reseller segment
- Focus on productivity not MHz
  - MHz is not equivalent to performance
  - Power management and battery life should also be key purchase criteria
- 0.13um Thoroughbred processor
  - Will enable continued performance roadmap for full-size notebooks
  - Pin-compatible with existing infrastructure
  - Enables new lower power options for thin&light notebooks
- Developing advanced technologies for next generation notebooks in 2003
  - Mobile version of “Hammer” 64-bit processor
  - HyperTransport™ Bus Architecture
  - Silicon on Insulator (SOI) technology

# US Retail Notebook Market Share

AMD up to 38%



# Competitive Comparison



	Mobile AMD Athlon™ 4 Processor	Mobile Pentium® 4 Processor	Desktop Pentium® 4 Processor
Frequency	1600+, 1500+, 1.2GHz, 1.1GHz, 1.0GHz	1.6GHz and 1.7GHz only	1.6GHz – 2.2GHz
Dynamic Power Management	AMD PowerNow!™ Technology	Enhanced SpeedStep™	No
Average Power	< 2W	< 2W	?
Platform Solutions	UMA or Discrete Graphics	Discrete Graphics Only	UMA or Discrete Graphics
Top-to-Bottom Compatibility	Yes	No	No



# Single and Dual AMD Athlon™ MP 2000+

## Workstation Configuration (ScienceMark)

Operating System	Windows® 2000 Professional	With Service Pack 2
Hardware	Processor	AMD Athlon™ MP processor 2000+, QuantiSpeed™ architecture operates at 1.67GHz
	Motherboard	ASUS A7M266-D, BIOS 1004
	Chipset	AMD-760™ MPX
	Memory	Samsung PC2100 Cas2 (DDR SDRAM) Qty. (2), 256MB Modules (512MB total)
	RAID Controller	LSI LOGIC MegaRAID Express 500
	Hard Drive	Seagate Cheetah 18GB Ultra 160 15k rpm (model ST318451LW)
	Network Card	Allied Telesyn AT2700TX 10/100
	Sound Card	Creative Labs Sound Blaster Live CT4830
	Video Card	ATI Fire GL2 (64MB, 4x AGP)
Drivers	AGP Miniport	AMD AGP miniport driver rev. 522S
	EIDE Drivers	AMD driver – version 141g
	Network Card	Driver provided by operating system - version 4.8.0.0
	Sound Card	Driver provided by operating system - version 5.0.2184.1
	Video Card	Driver provided by ATI - version 2082

# Single and Dual AMD Athlon™ MP 2000+ Workstation Configuration(Linux Kernel Compile)



Operating System	Linux	Red Hat 7.2 (2.4.7-10)
Hardware	Processor	AMD Athlon™ MP processor 2000+, QuantiSpeed™ architecture operates at 1.67GHz
	Motherboard	ASUS A7M266-D, BIOS 1004
	Chipset	AMD-760™ MPX
	Memory	Samsung PC2100 Cas2 (DDR SDRAM) Qty. (2), 256MB Modules (512MB total)
	RAID Controller	LSI LOGIC MegaRAID Express 500
	Hard Drive	Seagate Cheetah 18GB Ultra 160 15k rpm (model ST318451LW)
	Network Card	Allied Telesyn AT2700TX 10/100
	Sound Card	Creative Labs Sound Blaster Live CT4830
	Video Card	ATI Fire GL2 (64MB, 4x AGP)
Drivers	EIDE Drivers	Driver provided by operating system
	Network Card	Driver provided by operating system
	Sound Card	Driver provided by operating system
	Video Card	Driver provided by operating system

# Single and Dual 2.0 GHz Intel® XEON

## Workstation Configuration (ScienceMark)



Operating System	Windows® 2000 Professional	With Service Pack 2
Hardware	Processor	Intel 2.0GHz XEON
	Motherboard	DELL 530MT, BIOS A04
	Chipset	Intel i860 Chipset
	Memory	Samsung RDRAM PC800 ECC Qty. (2), 256MB Modules (512MB total)
	RAID Controller	LSI LOGIC MegaRAID Express 500
	Hard Drive	Seagate Cheetah 18GB Ultra 160 15k rpm (model ST318451LW)
	Network Card	Allied Telesyn AT2700TX 10/100
	Sound Card	Creative Labs Sound Blaster Live CT4830
	Video Card	ATI Fire GL2 (64MB, 4x AGP)
Drivers	AGP Miniport	DELL chipset driver 2.80.008,a06
	EIDE Drivers	DELL chipset driver 6.10.011,A10
	Network Card	Driver provided by operating system - version 4.8.0.0
	Sound Card	Driver provided by operating system - version 5.0.2184.1
	Video Card	Driver provided by ATI - version 2082

# Single and Dual 2.0 GHz Intel® XEON Workstation Configuration (Linux Kernel Compile)



Operating System	Linux	Red Hat 7.2 (2.4.7-10)
Hardware	Processor	Intel 2.0GHz XEON
	Motherboard	DELL 530MT, BIOS A04
	Chipset	Intel i860 Chipset
	Memory	Samsung RDRAM PC800 ECC Qty. (2), 256MB Modules (512MB total)
	RAID Controller	LSI LOGIC MegaRAID Express 500
	Hard Drive	Seagate Cheetah 18GB Ultra 160 15k rpm (model ST318451LW)
	Network Card	Allied Telesyn AT2700TX 10/100
	Sound Card	Creative Labs Sound Blaster Live CT4830
	Video Card	ATI Fire GL2 (64MB, 4x AGP)
Drivers	EIDE Drivers	Driver provided by operating system
	Network Card	Driver provided by operating system
	Sound Card	Driver provided by operating system
	Video Card	Driver provided by operating system

# AMD Athlon™ XP Processor

## Benchmark System Configurations – VIA KT266a DDR chipset



Operating System	Windows® XP	Microsoft Windows XP Professional RTM, no service packs / updates installed Build# 2600, DirectX version 8.1 (4.08.01.0810)
Hardware	Processor	AMD Athlon XP processor 2100+, QuantiSpeed architecture operates at 1.73GHz AMD Athlon XP processor 2000+, QuantiSpeed architecture operates at 1.67GHz AMD Athlon XP processor 1900+, QuantiSpeed architecture operates at 1.6GHz AMD Athlon XP processor 1800+, QuantiSpeed architecture operates at 1.53GHz
	Motherboard	Asus A7V266-E Rev. 1.07
	Memory	Corsair XMS2400 CM64SD256-2400C2, Qty (1) 256MB DIMM Module (256MB total)
	Hard Drive	IBM 41.0GB UDMA 100 (IC35L040AVER07-0 )
	Network Card	Allied Telesyn AT2700TX 10/100
	Sound Card	Sound Blaster Live! Model CT4670
	Video Card	Leadtek Winfast GeForce3 Titanium 500 64MB DDR
Drivers	AGP Miniport	Publisher Name: Provided by Operating System
	EIDE Drivers	Publisher Name: Provided by Operating System
	Network Card	Publisher Name: Provided by Operating System
	Sound Card	Publisher Name: Provided by Operating System
	Video Card	NVIDIA Version: 5.13.01. 2183

# Intel Pentium® 4 Processor

## Benchmark System Configurations – DDR



Operating System	Windows® XP	Microsoft Windows XP Professional RTM, no service packs / updates installed Build# 2600, DirectX version 8.1 (4.08.01.0810)
Hardware	Processor	Intel Pentium® 4 processor 2.0A GHz, 2.2GHz
	Motherboard	Intel D845BG, i845 Chipset, BIOS version PT84510A.86A.0012.P01
	Memory	Corsair XMS2400 CM64SD256-2400C2, Qty. (1), 256MB RIMM Modules (256MB total)
	Hard Drive	IBM 41.0GB UDMA 100 model(IC35L040AVER07-0)
	Network Card	Allied Telesyn AT2700TX 10/100
	Sound Card	Sound Blaster Live! Model CT4670
	Video Card	Leadtek Winfast GeForce3 Titanium 500 64MB DDR
Drivers	AGP Miniport	Publisher Name: Provided by Operating System
	EIDE Drivers	Publisher Name: Provided by Operating System
	Network Card	Publisher Name: Provided by Operating System
	Sound Card	Publisher Name: Provided by Operating System
	Video Card	NVIDIA Version: 5.13.01. 2183

# Intel Pentium® 4 Processor

## Benchmark System Configurations - RDRAM



Operating System	Windows® XP	Microsoft Windows XP Professional RTM, no service packs / updates installed Build# 2600, DirectX version 8.1 (4.08.01.0810)
Hardware	Processor	Intel Pentium® 4 processor 2.2GHz, 2.0A GHz, 2.0GHz, 1.9GHz, 1.8GHz
	Motherboard	Intel D850MD , i850 Chipset, BIOS version MV85010A.86A.0011.P05.0111141737
	Memory	PC-800 (RDRAM®), Qty. (2), 128MB RIMM Modules (256MB total)
	Hard Drive	IBM 41.0GB UDMA 100 model(IC35L040AVER07-0)
	Network Card	Allied Telesyn AT2700TX 10/100
	Sound Card	Sound Blaster Live! Model CT4670
	Video Card	Leadtek Winfast GeForce3 Titanium 500 64MB DDR
Drivers	AGP Miniport	Publisher Name: Provided by Operating System
	EIDE Drivers	Publisher Name: Provided by Operating System
	Network Card	Publisher Name: Provided by Operating System
	Sound Card	Publisher Name: Provided by Operating System
	Video Card	NVIDIA Version: 5.13.01. 2183

# Mobile AMD Athlon™ 4 Processor

## Benchmark System Configurations



Operating System	Windows® XP	Microsoft Windows XP Professional RTM, no service packs / updates installed Build# 2600, DirectX version 8.1 (4.08.01.0810)
Hardware	System	HP Pavilion N5470
	Chipset	Ali 1646 CyberMAGiK
	Screen Resolution	1024 x 768 x 16bit
	Memory	PC133 (SDRAM) Qty (2) 128MB DIMM Modules (256MB total)
	Hard Drive	IBM 10.0 GB (DJSA-210)
	Network	Accton EN2242 Series MiniPCI Fast Ethernet Adapter
	Sound	ESS Allegro PCI Audio
	Battery	HP f2024a 11.1V, 5400mAH
	Video	Trident CyberBlade-XP (Integrated in Northbridge)
Drivers	AGP Miniport	Publisher Name: Provided by Operating System
	EIDE Drivers	Publisher Name: Provided by Operating System
	Network	Publisher Name: Provided by Operating System
	Sound	Publisher Name: Provided by Operating System
	Video	Publisher Name: Provided by ALi / Trident



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This presentation contains forward-looking statements, which are made pursuant to the safe harbor provisions of the U.S. Private Securities Litigation Reform Act of 1995. Forward-looking statements are generally preceded by words such as “expects”, “plans”, “believes”, “anticipates”, or “intends”. Investors are cautioned that all forward-looking statements in this presentation involve risks and uncertainties that could cause actual results to differ materially from current expectations. Forward-looking statements in this presentation involve the risk that AMD OEM partner systems incorporating the AMD Athlon XP processor may not be released on schedule. We urge investors to review in detail the risks and uncertainties in the company’s U.S. Securities and Exchange Commission filings, including the most recently filed Form-10K.

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